

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/001274 A1

(51) International Patent Classification⁷: **F02M 27/04, 27/08**

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/HU2004/000011

(22) International Filing Date: 27 January 2004 (27.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
P0302008 30 June 2003 (30.06.2003) HU

(71) Applicant and
(72) Inventor: ROZIM, Péter [HU/HU]; Kertalja Út 32, Eger 3300 (HU).

(74) Agent: DANUBIA PATENT & TRADEMARK ATTORNEYS; Bajcsy-Zsilinszky Út 16, Budapest 1051 (HU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/001274 A1

(54) Title: A METHOD AND EQUIPMENT FOR REDUCING EMISSION AND FUEL CONSUMPTION IN ORDER TO IMPROVE COMBUSTION IN INTERNAL COMBUSTION ENGINES

(57) Abstract: A method and an equipment for reducing emission and fuel consumption in order to improve combustion in internal combustion engines, whereas, in order to achieve perfect combustion, prior to its entry into the combustion chamber of the internal combustion engine, the mixture of fuel and air is led through a treatment area characterised by specific physical properties, so as to provide, by applying high voltage, the air stream a charge of first polarity and the fuel stream a charge of opposite polarity and simultaneously vibrating at least one of the air and the fuel stream by a frequency in the ultrasonic range, in given cases in several, successive and/or parallel sections.